

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (Currently amended):

A hierarchical network system comprising:

a first plurality of peer devices, each of the first plurality of peer devices not being coupled to any other of the first plurality of peer devices;

a first network server coupled to each of the first plurality of peer devices, the first network server to manage and maintain a first name-to-address resolution index that includes a list of addresses for each of the first plurality of peer devices, the first network server configured to respond to requests for a peer device addresses of the first plurality of peer devices by querying the first name-to-address index;

a second plurality of peer devices, each of the second plurality of peer devices not being coupled to any other of the first and second pluralities of peer devices;

a second network server coupled to each of the second plurality of peer devices and to the first network server, the second network server to manage and maintain a second name-to-address resolution index that includes a list of addresses for each of the second plurality of peer devices, the second network server configured to respond to a request for a peer device address of one of the first plurality of peer devices by querying the first network server such that the second network server responds to the request with the peer device address of the one of the first plurality of peer devices as though the request was for a peer device address of one of the second plurality of peer devices.

Claim 2. (Currently amended):

The system of claim 1 wherein the first and second network servers are at equivalent hierarchical levels. ~~levels and the first and second pluralities of peer devices are under the network server to which they are coupled.~~

Claim 3. (Original):

The system of claim 1 wherein the first and second network servers have a common zone relationship .

Claim 4. (Previously presented):

The system of claim 3 wherein the second network server requires access authorization from the first network server before a common zone is established.

Claim 5. (Currently amended):

The system of claim 3 further comprising:

a third plurality of peer devices, each of the third plurality of peer devices not being coupled to any other of the first, second, and third pluralities of peer devices; and

a third network server coupled to each of the third plurality of peer devices and to the second network server, the third network server to manage and maintain a third name-to-address resolution index that includes a list of addresses for each of the third plurality of peer devices, the third network server configured to respond to the request for the peer device address of the one of the first plurality of peer devices by querying the second network server such that the third network server responds to the request with the peer device address of the one of the first plurality of peer devices as though the request was for a peer device address of one of the third plurality of peer devices.

Claim 6. (Previously presented):

The system of claim 5 wherein the second network server is also configured to query the third name-to-address index such that the second network server responds to a request for a peer device address of one of the third plurality of peer devices as though the request was for a peer device address of one of the second plurality of peer devices.

Claim 7. (Previously presented):

The system of claim 1 wherein the first network server is also configured to query the second name-to-address index such that the first network server responds to a request for a peer device address of one of the second plurality of peer devices as though the request was for a peer device address of one of the first plurality of peer devices.

Claim 8. (Currently amended):

A hierarchical network server device comprising:

an input interface to receive messages from a plurality of ~~connected~~ peer devices, each of the plurality of peer devices being coupled to the server and not being coupled to any other of the plurality of peer devices; and

a processing unit coupled to the input interface, the processing unit to manage communications to the plurality of connected peer devices and configured to receive and respond to name-to-address resolution requests from the plurality of connected peer devices, the processing unit including a name-to-address index that maintains a list of addresses for each of the plurality of connected peer devices, the processing unit configured to query a second name-to-address index included on a second server device configured to manage a second plurality of connected peer devices, the second name-to-address index maintaining a list of addresses for each of the second plurality of connected peer devices, such that the server device responds to a request for a peer device address of one of the second plurality of connected peer devices as though the request was for a peer device address of one of the first plurality of connected peer devices.

Claim 9. (Original):

The device of claim 8 further comprising:

an output interface to couple the processing unit to the at least one peer on the first network.

Claim 10. (Original):

The device of claim 8 wherein the processing unit responds to a name-to-address resolution request by sending the requested address if it is found, and sending an address not found reply if the address is not found.

Claim 11. (Currently amended):

The device of claim 8 being at an equivalent hierarchical level as the other network management device it queries if it is unable to resolve the requested address, ~~address and the plurality of connected peer devices being under the device.~~

Claim 12. (Original):

The device of claim 8 wherein the device establishes common zone relationships with the other devices it queries.

Claim 13. (Original):

The device of claim 12 wherein the device provides access authorization before establishing a common zone.

Claim 14. (Currently amended):

A method of resolving a request for a peer address in a hierarchical network, the method comprising:

establishing a common zone relationship for name-to-address resolution sharing between a first network including a first server and a first plurality of peer devices coupled to the first ~~server, server and not coupled to any other of the first plurality of peer devices,~~ and a second network including a second server and a second plurality of peer devices coupled to the second ~~server, server and not coupled to any other of the first and second pluralities of peer devices,~~ each server managing and maintaining a list of addresses for the plurality of peer devices coupled to the server;

receiving a request at the first server from a first peer included in the first plurality of peer devices for the address of a second peer included in the second plurality of peer devices;

checking the list of addresses maintained by the first server for the requested address of the second peer;

checking the list of addresses maintained by the second server without relying on a higher level server if the requested address is not found in the list of addresses maintained by the first server; and

returning the requested address from the first server to the first peer if the address is found, as though the request was for a peer device address of one of the first plurality of peer devices.

Claim 15. (Original):

The method of claim 14 further comprising:

returning an indication that the requested address was not found to the first peer if the requested address is not found.

Claim 16. (Previously presented):

The method of claim 14 wherein establishing a common zone relationship requires the second network server to provide access authorization to the first network server before a common zone is established.

Claim 17. (Previously presented):

The method of claim 14 wherein there is no common zone relationship between the first server and the second server, and derivative common zone name-to-address resolution is selectively permitted by a server having common zone relationships with the first server and the second server.

Claim 18. (Currently amended):

A machine-readable medium comprising at least one instruction to resolve a peer address in a hierarchical network, ~~address~~, which when executed by a processing unit, causes the processing unit to perform operations comprising:

establishing a common zone relationship for name-to-address resolution sharing between a first network including a first server and a first plurality of peer devices coupled to the first ~~server~~, ~~server and not coupled to any other of the first plurality of peer devices~~, and a second network including a second server and a second plurality of peer devices coupled to the second ~~server~~, ~~server and not coupled to any other of the first and second pluralities of peer devices~~, each server managing and maintaining a list of addresses for the plurality of peer devices coupled to the server;

receiving a request at the first server from a first peer included in the first plurality of peer devices for the address of a second peer included in the second plurality of peer devices;

checking a the list of addresses maintained by the first server for the requested address of the second peer;

checking the list of addresses maintained by the second server without relying on a higher level server if the requested address is not found in the list of addresses maintained by the first server; and

returning the requested address from the first server to the first peer if the address is found, as though the request was for a peer device address of one of the first plurality of peer devices.

Claim 19. (Original):

The machine-readable medium of claim 18 further comprising:

returning an indication that the requested address was not found to the first peer if the requested address is not found.

Claim 20. (Previously presented):

The machine-readable medium of claim 18 wherein establishing a common zone relationship requires the second network server to provide access authorization to the first network server before a common zone is established.

Claim 21. (Previously presented):

The machine-readable medium of claim 18 wherein there is no common zone relationship between the first server and the second server, and derivative common zone name-to-address resolution is selectively permitted by a server having common zone relationships with the first server and the second server.